Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Telephone Number Portability	CC Docket No. 95-116

COMMENTS OF VERIZON

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Summary

In the Further Notice, the Commission asks for comments concerning whether it should change its rules as to two aspects of number portability. In each case, the Commission should change nothing. Local exchange carrier number portability has worked well for years, and there is no reason to believe that CMRS portability will not work well too. The possible changes posed in the Further Notice are either infeasible or would be very expensive to implement, and, in light of the success of number portability generally, cannot possibly provide benefits anywhere approaching these costs.

The Commission's first area of inquiry relates to certain ports from CMRS carriers to LECs, ports involving CMRS telephone numbers that are associated with rate centers that are different from the location where the customer wants LEC service. At this point, there has been virtually no demand for CMRS-to-LEC porting — roughly one percent of Verizon's[1] intermodal ports have been in that direction, and there is no reason to believe that this percentage would increase significantly if the Commission required the porting where the CMRS telephone number is associated with a rate center that is different from where the customer wants service. Fixing the

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[1] The Verizon telephone companies are the local exchange carriers affiliated with Verizon Communications Inc., listed in Attachment A.

billing problems associated with such ports that were identified in the Further Notice would be expensive for Verizon and for carriers generally, and these fixes would generate a new set of adverse consumer consequences. The only way to remedy these new problems would be for the Commission to mandate location portability beyond rate center boundaries, which it has declined to do in the past because it was inconsistent with the public interest. Nothing that has happened since then should change that conclusion.

Nor should the Commission change the minimum time within which a LEC must effectuate a customer port, now three days after the return of a firm order confirmation. The existing porting interval was the product of industry agreement and was adopted by the Commission, and it has worked well. There is no evidence to suggest that this interval has discouraged consumers from changing carriers and porting their numbers. Changing the interval now — and shortening it substantially to a couple of hours — would require the LECs to redesign the process flows developed by the North American Numbering Council ("NANC") and to make major modifications to their operation support systems. Moreover, all that effort to modify existing systems simply might not work. In fact, when the NANC examined this, it concluded that "it is not feasible to shorten the current intervals."[2] Given the lack of documented benefit to such a change, the Commission should not require such an effort.

I. The Commission Should Not Change the Rules as to LEC-CMRS Porting.

The Further Notice correctly identifies an asymmetry between porting a telephone number from a LEC to a CMRS provider and porting a number in the other direction and "seek[s]

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[2] North American Numbering Council, Local Number Portability Administration Working Group, 3rd Report on Wireless Wireline Integration at 15, dated September 30, 2000 ("3rd Report"), *available at* www.npac.com/cmas/co_docs/WWISC3rdReport1200.doc.

comment on how to facilitate wireless-to-wireline porting" in these circumstances.[3] Although that disparity works to the detriment of the LECs, Verizon urges the Commission not to attempt to remedy it. One solution — which, at a very minimum, would require redesign of LEC billing systems — would be extremely expensive, and its cost, which consumers would bear, would far outweigh any benefit consumers would receive. Another solution — substantially modifying the system of rate centers overseen by the States — is beyond the Commission's authority and would inappropriately insert the Commission into matters of local ratemaking.

A. The Rate Center System Makes It Inappropriate for a LEC To Use Certain CMRS Numbers at a Customer's Location, and Such Use Is Not "Number Portability" in Any Event.

Consumers will suffer if CMRS-to-LEC porting is permitted when the CMRS rate center is different from the rate center where the consumer wants a wireline phone. As the Commission found, there would be "adverse impacts to consumers resulting from wireless-to-wireline porting where the rate center associated with the wireless number is different from the rate center in which the wireline carrier seeks to serve the customer."[4] These adverse consequences are caused by the established system of LEC rate centers, which significantly complicate using CMRS telephone numbers in the LEC network. The problem arises when the customer's physical location at which she receives LEC service is outside the rate center associated with the CMRS number she is using — that is, where the user is actually changing location at the same time she is changing service provider.

An example would be a customer who wants Verizon's local service at her home in Manassas, Virginia, and wants to use her CMRS number for that service at that location and

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[3] FNPRM ¶ 42.

[4] FNPRM ¶ 43.

where her CMRS provider has assigned her a number associated with the Arlington, Virginia, rate center. Using such a number for local exchange service would result in calls being incorrectly rated. Some calls that were actually physically interexchange or "long distance" — that originated and terminated in different rate centers, such as a call from the customer's Manassas home to her sister in Arlington or Silver Spring, Maryland — would not be identified as such and would be rated as local. Conversely, calls that are physically local — such as between the porting customer and her next-door neighbor — would appear to be interexchange and could be billed as toll calls. Thus, the Commission was correct that "porting the number to a wireline telephone at the customer's location could result in calls to and from that number [that are geographically local] being rated as toll calls."[5]

Of course, porting a number in these circumstances is not "number portability" to begin with and is, therefore, not required by the Act or the Commission's rules. The Act defines "number portability" as "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another."[6] The Commission adopted this definition in its regulations.[7] While the question of what constitutes "the same location" when discussing a CMRS user may not always be clear, one thing, at least, should be clear — when a user wants to take a CMRS number associated with Arlington and use it with a fixed physical location in Manassas, that user is, in fact, not at "the same location." Because such a transfer is not "number

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5 FNPRM ¶ 41.

6 47 U.S.C. § 153(30).

7 47 C.F.R. § 52.21(l).

portability," LECs and CMRS providers are not required to accommodate it, and Verizon does not do so today.[8]

B. The Cost To Fix This Problem Through Billing System Changes Is Prohibitive, and the Fix Creates New Problems, Which Are Even More Expensive To Remedy.

Telecommunications carriers have based their rate structures and billing systems on rate centers for sixty years. This system allows carriers to charge different rates for calls between different rate centers. For billing purposes, rate centers are identified by exchange (or NXX) codes, the first three digits of the telephone number after the area code. Carrier billing systems determine the end points of a call — and, therefore, how a call is to be billed — based on the NXXs of the calling and called telephone numbers.

If a LEC ports in a CMRS number associated with a rate center that is different from its customer's physical location, this system no longer works. This is because carrier billing systems cannot simply look at the NXXs of the calling and called telephone numbers to determine how the call is to be billed. Thus, Verizon's billing systems would see the ported-in Arlington CMRS number as being in Arlington, even though the user is permanently, physically located in Manassas. To allow this porting and bill calls correctly, Verizon (and other carriers) would have to create new database systems to keep track of the physical location of these ported-in out-of-area numbers. And this new database would have to be linked to Verizon's billing systems to allow those systems to consult the database to get the information needed to properly rate every

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[8] If Verizon receives such a request, it advises the customer of three options: keeping the number and buying foreign exchange service (with the tariffed charges for that service), keeping the number and using it with a remote call forwarding arrangement to a newly assigned number at the new location, or a number change.

call. This would, of course, make the bill-preparation process more complicated and much more time consuming, at substantial cost to the carrier and, ultimately, the carrier's customers.

But that's not all. Carriers would have to exchange the information that is in these new databases. This would allow other LECs in the Washington area to determine the location of the Arlington CMRS number that has been ported to Verizon so that they know how to bill their customers who call that number. Mechanisms to do this do not exist today and would have to be designed, developed and deployed by the industry.

In addition, correcting the incorrect rating of calls in this way would create a new set of "adverse impacts to consumers." While Verizon's billing system would correctly identify and rate the call from a Silver Spring resident to the customer in Manassas with the Arlington CMRS number, the local network would not — it would still see the call as local.

The first consequence of this would be that a call that the caller reasonably believed to be local based on the telephone number the caller dialed — a call to the ported number from Silver Spring — would actually be billed as toll.[9] In order to prevent such unhappy surprises, the industry would have to develop real-time systems to identify toll calls and implement a new mechanism (a voice message or toll-warning tone) to advise the caller that he is making a toll call before that call is completed and he starts to incur charges.

Another such consequence is that calls would be completed by the "wrong" carrier. Today, end office switches decide whether to deliver a call to the caller's presubscribed toll carrier based on the area code and NXX of the number being called. The call from the Silver Spring resident to the customer in Manassas with the Arlington number will look to the switch

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[9] While the reverse would also be the case — calls that look like toll being billed as local — consumers would presumably not complain in such cases.

like a local call, and it will be handled as such. If such a call were really an intraLATA toll call, the caller would expect the LEC to hand it off to his presubscribed intraLATA toll provider for completion, as required by existing regulations, and to be billed by that carrier rather than by the LEC. Conversely, the call from the customer's neighbor in Manassas would be incorrectly handed off to the presubscribed carrier where the NXX of the ported-in number is not in the neighbor's local calling area.

Solving these two problems would necessitate a fundamental change in the way end office switches function today, in that they could no longer rely on the NXX of the called number to route a call. This is not a change that any individual service provider could make on its own, but could be accomplished only through industry-wide standards. No such work of this type is currently underway.

In fact, the undertaking necessary to do all this would be the same as would be necessary for the industry to implement full location portability. In 1996, the Commission concluded "that requiring service or location portability now would not be in the public interest."[10] In fact, "the disadvantages of mandating location portability outweigh the benefits."[11] This was because of the very same problem the Commission has identified in connection with this CMRS-to-LEC porting — "Location portability would create consumer confusion and result in consumers inadvertently making, and being billed for, toll calls."[12] To solve this problem "carriers, and ultimately consumers, would incur the additional costs of modifying carriers' billing systems, replacing 1+ as

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10 *Telephone Number Portability*, 11 FCC Rcd 8352, ¶ 182 (1996) ("*First Order*").

11 *First Order* ¶ 184.

12 *First Order* ¶ 184.

a toll indicator, and increasing the burden on directory, operator, and emergency services to accommodate 10-digit dialing and the loss of geographic identity."[13]

The North American Numbering Council examined location portability two years later as part of its review of number optimization measures generally and reached the same conclusion. It found, "It is estimated that Location Portability would require similar, if not longer, planning, requirements, network, operations and customer care systems development and service provider implementation and testing time frames than was required for LNP."[14] In fact, "Costs of SP switching, signaling, LNP database, customer care and operations systems changes would be equal to the support of LNP,"[15] which totaled more than $750 million for Verizon alone. Furthermore, "Business customers incur costs to change their CPE systems to accommodate location portability (e.g., New Network Addressing, Least Cost Routing, Local Toll Determination at the PBX, Local Calling Requirements, Facilities Resale, and Telemarketing Databases.)"[16]

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[13] *First Order* ¶ 184.

[14] Number Resource Optimization Working Group, Modified Report to the North American Numbering Council on Number Optimization Methods, § 7.3, dated October 20, 1998.

[15] *Id.* § 7.4.1. These costs were for the augmentation or modification of switches to screen, route, and rate on something other than the dialed NPA-NXX, augmentation of LNP databases to include a unique location identifier, modification to signaling systems to transmit unique location identifier across and between service provider networks, modifications to billing, maintenance, and provisioning systems to deal with location portability, modification to telephone number administration systems to track numbers across multiple switches and rating areas, potential need to provision toll warning or announcement prior to call completion, changes to the N-1 rules for database dips, potential changes to number portability database capacities directly attributable to location portability, possible switch modifications to increase capacity of the number of NXXs served by a given switch, modification or enhancements to systems that require real time rating (*e.g.*, smart phones, PBXs) to enable them to access number portability information and possible changes to networks (*e.g.*, trunking rearrangements including operator service trunks, local dialing plans and toll recording equipment). *Id.* § 7.6.1.

[16] *Id.* § 7.4.2

Not only would changing the porting rules have "adverse consequences," but there is very little demand for this type of portability. The Commission's conclusion in 1996 was buttressed by the fact that "the demand for location portability is currently unclear."[17] The demand for CMRS-to-LEC porting has been very small, roughly one percent of all intermodal ports. There is nothing to suggest that the demand for CMRS-to-LEC porting where the rate center associated with the wireless number is different from the rate center in which the customer is located would be so much greater as to change that conclusion.

Merely correcting the billing of these calls would be costly. More importantly, it creates new adverse consumer consequences which cannot be remedied by any technical solution short of location portability, which the Commission has rejected as not in the public interest. In light of the fact that CMRS-to-LEC porting is a tiny fraction of intermodal porting (which is, in turn, a small percentage of porting volumes overall) and that ports of this type would be only a portion of that tiny fraction, expending any significant resources to facilitate them is plainly not in the public interest.

C. The Commission Should Not Try To Fix this Problem by Interfering with State-Established Rate Centers.

The Commission should not eliminate the rate center system just to facilitate instances of number porting for which there is no proven demand. The costs would be high and the disruption substantial, and consumers would be no better off than they are now.

The rate center system was established in the 1940's primarily to facilitate the routing and billing of telephone calls.[18] In the 1990's, regulators and carriers considered whether major

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17 *First Order* ¶ 185.

18 *Numbering Resource Optimization*, 16 FCC Rcd 306, ¶ 144 (2000).

modifications of the system would help achieve better utilization of telephone numbers. In its deliberations on this issue, the Commission was "mindful that rate center consolidation may be a difficult option for many states and carriers,"[19] and found that "rate centers are inextricably linked with local call rating and routing issues, which fall within the traditional jurisdiction of state public utility commissions."[20] If the Commission declined to involve itself in these local issues in the name of telephone number conservation, it certainly should not do so now.

Finally, any broad-scale change in the existing rate center system would be expensive, involving carrier costs of two types. First are the costs to implement it in the carrier's network and support systems.[21] Any elimination of rate centers must permit carriers to recover their out-of-pocket costs, irrespective of any price cap or rate stabilization plans. The other cost is the loss of toll revenues for calls between customers who are not in the same rate center. Therefore, if rate centers are eliminated, the Commission must also recognize that rate center elimination has made the consumer's local service more valuable by turning toll into local calls and permit the local carrier to charge customers for it accordingly.

D. The Commission Should Not Adopt Any Other Radical Solutions.

The Further Notice seeks comment on three possible solutions to the billing problem it identifies. None of them is the answer.

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19 16 FCC Rcd 306, ¶ 148.

20 *Numbering Resource Optimization*, 14 FCC Rcd 10322, ¶ 117 (1999).

21 For example, Verizon would have to reprogram all local/toll routing and rating tables in its switches, determine costs of and add new facilities required due to increased toll-to-local calling, program new exception tables, reprogram all systems which use V/H coordinates, determine interoffice trunking requirements for new toll-to-local routes, re-engineer trunks/switching, determine impact on interexchange carrier POPs, update billing systems to ensure proper rating of calls, update internal/external training material, and revise all affected methods and procedures.

The Further Notice seeks "comment on the extent to which wireline carriers should absorb the cost of allowing the customer with a number ported from a wireless carrier to maintain the same local calling area that the customer had with the wireless service provider."[22] This proposal misses the point altogether. First, it doesn't fix the real consumer problem identified by the Commission — that people who call the ported number will incur toll charges for calls that appear to them to be local. Making adjustments to the local calling area of the porting customer will do nothing for these other customers. Second, this proposal would have the Commission interfere in local ratemaking, an area outside its jurisdiction. Third, it would create a discriminatory local rating plan, in which customers who port certain CMRS numbers into the LEC network get a better deal than customers who port other CMRS numbers (those associated with the rate center where their LEC service is located), customers who port CLEC numbers or customers who do not port at all.

The Further Notice also asks for "comment on the extent to which wireline carriers can serve customers with numbers ported from wireless carriers on a Foreign Exchange (FX) or virtual FX basis."[23] Verizon can do this, and, in fact, its procedures are to offer such an arrangement to any customer who wants to port in an out-of-area CMRS number.

Finally, the Commission notes that a "third option is for wireline carriers to seek rate design and rate center changes at the state level to establish larger wireline local calling areas."[24] This is, of course, an option, but it is an option that should be left to each wireline carrier and to state authorities. With multiple wireline and wireless carriers in every market, the Commission

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22 FNPRM ¶ 44.

23 FNPRM ¶ 44.

24 FNPRM ¶ 44.

should let the marketplace work and not issue new mandates and regulations. If one LEC wants to market actively to CMRS customers whose telephone numbers create the problems identified by the Commission, then it should be allowed to do so and to seek whatever rate design changes it believes are necessary. If such marketing is not in the business plan of a particular LEC, it should be not forced into it. If there really is a market for these arrangements, it will become apparent without regulatory intervention. If there isn't, then regulators should not require carriers and their customers to bear the costs of preparing for it.

II. The Commission Should Not Change the LEC Porting Interval.

Another question raised by the Further Notice is whether some added benefit from quicker porting is worth the very real and substantial costs of achieving it. The answer is that it is not. Moreover, it is not clear that a substantially shorter interval is possible for the LEC industry.

A. The Existing Porting Interval Has Worked Well for Consumers and the Industry for Years, and There Is No Reason Why Everyone Should Change Now.

The local exchange carrier industry has worked with this porting interval since it began providing number portability in 1997. Wireline customers have not been reluctant to change carriers or to port because of the time it takes for a port to complete. In fact, more than 25 million telephone numbers were ported nationwide over the past three-year period.

This should not be surprising since the Commission adopted the existing interval after thorough analysis. The Commission largely based this and other number portability requirements on recommendations it received from the North American Numbering Council. The provisioning model upon which the rules are based took years to develop and was the product of negotiation and compromise.

As the NANC reported to the Commission, the basic number portability process flows were based on this interval.[25] Changing the interval would require changing the process flows between carriers. For example, these process flows provide for a 24-hour period for the new service provider and the old service provider to agree on a date to port the customer (that is, the LSR-LSC process), a process which, the NANC notes, involves "many variables" which already "make it challenging to meet the 24 hour interval to complete the ... process."[26] In fact, the NANC reported, "Actual experience has shown that these times [for porting under existing industry process flows] are only met under ideal conditions."[27] Drastically shortening the interval would require re-engineering of the processes and existing systems. For these reasons, the NANC concluded, "it is not feasible to shorten the current intervals."[28]

B. Changing the Porting Interval Now Would Require an Expensive Redesign of the Number Portability Model.

The local exchange carrier industry designed its processes and interdependent systems based on the porting interval in the Commission's rules. As the NANC reported to the Commission, the existing interval was adopted "by the wireline carriers in order to perform all of the system updates and any physical work required to accomplish the port."[29] It would be extremely expensive for those carriers to change those processes now, costs which consumers ultimately would bear. It cost Verizon well over $100 million to modify dozens of its then-

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25 3rd Report at 8-9.

26 3rd Report at 9.

27 3rd Report at 10.

28 3rd Report at 15.

29 North American Numbering Council, Local Number Portability Administration Working Group, 2nd Report on Wireless Wireline Integration at 8, dated June 30, 2000, *available at* www.npac.com/cmas/co_docs/WWISC_2nd_Report_063099.doc.

existing operating support systems to provide number portability using the standard porting interval. Many of these systems, as well as the new systems Verizon had to deploy to support number portability, would have to be changed to accommodate a drastically shortened porting interval. Changes would be necessary in Verizon systems running from ordering through provisioning. While most simple number portability orders today flow through without manual intervention, a significant number do require special handling. Even if the systems were changed to incorporate a shorter interval, there would still be orders that would require manual handling, and they would not meet that standard.

LEC systems and operations would have to be re-designed in fundamental ways in order to achieve a porting interval of only a few hours.

First, today, Verizon processes an order to port out a customer's telephone number in the same way it processes many types of customer orders, and these orders go through several different systems before the number is ported and the old service is disconnected. This processing is often done serially — an order must be successfully processed by one system before it moves on to the next.

Under the provisioning flows developed by the NANC, the porting process starts with the new service provider's sending an LSR to Verizon, which indicates that a customer will be porting her number to them. Verizon must perform a number of edit checks to ensure all necessary data has been included. If it has, then Verizon returns an acknowledgement of receipt of the LSR to the new provider.

After Verizon acknowledges the LSR, Verizon starts the process that will result in its generation of the firm order confirmation, or FOC. This includes confirming that the telephone number is in Verizon's billing records and that it may be ported and determining whether there are

any additional numbers and directory listings associated with the account, and, if so, whether they have been addressed on the LSR to port the number.

After this review is completed, Verizon must translate the request into a service order to move the request to and through Verizon's ordering, provisioning, billing and maintenance work groups. This process includes a review to determine if the telephone number is associated with a complex product (*e.g.*, PBX, Centrex, interoffice facilities). The request must also be reviewed for any additional associated equipment or groups of telephone numbers that would have to be reworked in order to free the telephone number to port out on the due date. If no issues are identified that require the request to be sent a negotiator for in-depth review, it is released into the initial provisioning systems, and a FOC is returned to the new service provider.

Information from the service order now must be edited and reformatted for use by other provisioning systems. This editing includes verification that the telephone number is resident in Verizon's provisioning systems. The request is then forwarded to the next provisioning work group. This work group checks the information on the request against information in various internal systems (such as, the central office and loop equipment inventory systems). After these steps are completed, the service order is then distributed to the next work groups, the central office and switch technicians. When their review is completed, the telephone number is ready for porting.

On the agreed upon porting date, the new provider forwards an activation message to the NPAC, which has the effect of redirecting calls to the number to the new provider. Verizon then removes the translations for the ported number from its switch.[30]

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[30] Additional activities take place after the port has been completed, including sending completion notifications to the new provider, sending the order to the 911 system to

Second, as the NANC explained, many carriers use batch processing:

> "Many of the SPs that are participating in Local Number Portability (LNP) employ the use of large mainframe computer systems. These systems are the core processing systems that run their business operations and provide service to their customers. Most of these existing systems use a batch processing method, which means collecting data during the normal work day and then sorting, processing and distributing this data to other internal and external systems during off peak hours."[31]

This batch processing, of course, makes a porting interval of a few hours impossible.

The systems involved do not merely support number portability — "these systems form the core of the business operation."[32] And, significantly, "are inter-dependant on one another, a change to one system may have a cascading effect on the next system. It is estimated a reduction in the porting interval could impact at least 10 to 15 major existing systems within a company."[33] For a carrier "to consider a change from batch processing to real time data processing would require an in-depth systems analysis of all business processes that use these systems," which "would be a very labor intensive and time consuming effort."[34]

Third, again as the NANC reported, a porting interval of hours could increase personnel and staffing costs. "Changing from the batch processing method of operation could extend staffing hours, particularly on the weekends. Operational changes of this nature could require 24

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unlock the 911 database so the record can be modified or deleted, and updating Verizon's billing records and maintenance systems.

31 3rd Report at 13.

32 3rd Report at 14.

33 3rd Report at 14.

34 3rd Report at 14.

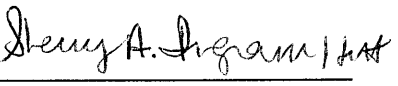
hours, 7 days a week (24x7) operations...."[35] This, of course, "would require staffing on a 24x7 basis, thus increasing expense to the companies' operation and thus the consumer."[36]

While Verizon has not estimated the costs of all the system and operational changes that shortening the interval to several hours would require, it is obvious that they would be substantial and far outweigh any consumer benefit of that change.

Conclusion

The Commission should not change its existing number portability rules.

Respectfully submitted,



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35 3rd Report at 14.

36 3rd Report at 14.

ATTACHMENT A

THE VERIZON TELEPHONE COMPANIES

The Verizon telephone companies are the local exchange carriers affiliated with Verizon Communications Inc. These are:

Contel of the South, Inc. d/b/a Verizon Mid-States
GTE Midwest Incorporated d/b/a Verizon Midwest
GTE Southwest Incorporated d/b/a Verizon Southwest
The Micronesian Telecommunications Corporation
Verizon California Inc.
Verizon Delaware Inc.
Verizon Florida Inc.
Verizon Hawaii Inc.
Verizon Maryland Inc.
Verizon New England Inc.
Verizon New Jersey Inc.
Verizon New York Inc.
Verizon North Inc.
Verizon Northwest Inc.
Verizon Pennsylvania Inc.
Verizon South Inc.
Verizon Virginia Inc.
Verizon Washington, DC Inc.
Verizon West Coast Inc.
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